

REMARKS

Claims 1-7, 9-12, 16-18, and 21-31 are pending. Claims 1, 9, 16, 24, 26 and 29 have been amended, and claims 10-12 have been canceled without prejudice to their prosecution in future divisional applications. None of the amendments constitute new matter. Claims 1-3, 6, 7, 9, 12, 16, 17 and 21-31 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over United Kingdom Patent GB 2177889 to Nacey ("Nacey") in view of U.S. Patent No. 3,316,675 to Cartwright ("Cartwright"). Claims 10 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nacey in view of Cartwright and in further view of Netherlands Patent NL 8700470 to Dekker ("Dekker"), but this rejection has been rendered moot in light of the cancellation of claims 10-12. Claims 4, 5 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nacey in view of Cartwright and further in view of U.S. Patent No. 3,958,365 to Proctor ("Proctor").

The present invention relates to a plant support that overcomes known disadvantages of conventional plant supports in that it allows for the growth of the plant roots through the box-shaped element when the box-shaped element is placed on or in the ground. The box-shaped element possesses an open wall structure, which allows roots to grow without obstruction. The present invention also teaches the addition of a biodegradable liner to the box-shaped element to prevent the passage of growth medium through the openings in the box-shaped element while concurrently allowing the passage of roots and root hairs through the openings in the box-shaped element. As a result, the present invention teaches the manufacture of a plant support mechanism that can be placed in or on the soil and that anchors the plant during growth and cultivation. Importantly, the present invention dispenses with the need for transplantation and cumulative cultivation processes, which represent drawbacks associated with the prior art.

Claims 1-3, 6, 7, 9, 12, 16, 17 and 21-23 are rejected as obvious over Nacey in view of Cartwright. Nacey discloses a plant carrier that provides support for a growing plant while simultaneously allowing for transport of the maturing plant. Specifically, Nacey discloses a plant carrier comprising a base, a support extending upwardly from the base, and two upright side walls which together form a channel section. The base channel accommodates a grow bag, while the support serves as a bracing scaffold when the plant is affixed or grows thereto. The structure is formed from mesh material that allows for “drainage from the base of the structure” (page 1, lines 74-75).

Cartwright discloses a plant container apparatus for improved packaging of a plant having a root system confined in the shape of a ball. In particular, Cartwright describes a carrier with a cover that is comprised of flexible material such as burlap or a plastic sheet (col. 2, lines 40-42). The cover directly contacts the soil surrounding the roots of the plant, and Cartwright discloses the use of one or more drain holes “as a means for controlling the moisture content of the ball” (col. 1, lines 70-71). Cartwright further discloses the use of several wire loops radiating from a circular selvage base member to secure a ball containing growth medium around the root system of a plant. Cartwright’s objective is to provide an apparatus in which “the form of the container is distortable and will closely conform to the general configuration of the ball of earth to tightly bind same in the cover or liner...” (col. 3, lines 44-47).

Claims 1-3, 6, 7, 9, 12, 16, 17 and 21-23 are not obvious over Nacey in view of Cartwright. Nacey relates solely to a plant carrier and does not teach or suggest a method for producing a plant support system capable of accommodating a growing plant indefinitely. The Office Action states that Nacey describes a box-shaped element “being at least partially covered with a preferably covering material.” However, the “cover” referred to in the Office Action is more

appropriately termed a “grow bag” (page 1, lines 17-19) and it does not teach or suggest the biodegradable inner lining layer manufactured in the process of the present invention. A “grow bag” (also referred to as an “root control bag” by the United States Department of Agriculture) is a “porous fabric bag made of a non-biodegradable material such as polypropylene.” [see attached sheet]. As such, it cannot be said that the biodegradable inner liner of the present invention is rendered obvious by the grow bag taught by Nacey, as the latter is intended to contain root growth.

Similarly, Cartwright relates exclusively to a plant container apparatus, which by definition encloses and contains the roots of the plant. The “drain holes” mentioned in the disclosure provide means for controlling the moisture in the container and are not intended to allow for the outgrowth of plant roots. Cartwright does not teach or suggest the use of a biodegradable inner liner as disclosed in the present invention. Rather, Cartwright describes the use of a burlap or plastic cover for the purpose of securing soil in the container for use in handling, transportation, lifting, and display packaging. In light of the objectives of Cartwright, there is no motivation for one skilled in the art to modify Nacey in view of Cartwright in order to obtain a process for manufacturing a subterranean plant support device that facilitates spatially unrestricted root growth. Neither Nacey nor Cartwright teach or suggest the process of manufacturing a plant support for use underground.

The Office Action suggests that it is common knowledge to one of ordinary skill in the art that burlap constitutes a biodegradable material. However, the Examiner’s equating of burlap’s “natural” quality to a modern-day biodegradable substance is improper. The Examiner is engaging in impermissible hindsight in order to attempt to equate modern-day definitions of “biodegradable” with the implications of use of a burlap cover in 1965. As Cartwright also refers to the use of plastic, polyethylene, polypropylene, or polyester as the cover material (col. 2, lines 40-42), it is clear that Cartwright does not suggest the benefits to be realized by use of a truly biodegradable covering

material. Even assuming, *arguendo*, that burlap is a biodegradable material in the same manner as the exemplary coco fibers of the present invention, Cartwright does not provide the motivation lacking in Nacey to manufacture a plant support that allows for perpetual and specially unrestricted subterranean growth of the plant roots.

Nacey and Cartwright both teach away from the present invention. Specifically, both Nacey and Cartwright disclose plant support products (a “carrier” and a “container”) that do not allow the growth of roots through a covering material and into the Earth. Unlike the process of the present invention, these products are not intended to be used in conjunction with the long-term transplantation of plants. Taken together, the two references fail to teach or suggest the process of manufacturing a plant support that functions below-ground by perpetually promoting the unrestricted growth of the plant roots. Furthermore, the references fail to provide one of ordinary skill in the art with motivation to modify these references to achieve the present invention, which incorporates a biodegradable inner layer specifically intended to promote root growth when the support is placed on or in the ground. Finally, the references fail to teach or suggest the process of creating plant supports in tandem, *e.g.* for use in the creation of a hedge as described in claims 24-25 and 29-31 of the present invention. For all of these reasons, claims 1-3, 6, 7, 9, 12, 16, 17 and 21-23 are not obvious and should be allowed.

Claims 4, 5 and 18 are rejected as obvious over Nacey in view of Cartwright and further in view of Proctor. Proctor discloses a horticultural aid that serves as a soil cover around plants placed in pots, tubs, or baskets and a method for making the same. The horticultural aid serves to conserve moisture in the soil and is comprised of a “web of organic or inorganic fibrous material having an adhesive and/or bonding substance applied thereto” (col. 1, lines 31-34). The fibers

suitable for use include synthetic and plastic fibers (col. 1, lines 44-45). Proctor discloses a process for forming a moisture-conserving means for “containing” a plant in soil (col. 4, lines 29-30).


Claims 4, 5 and 18 are not obvious over Nacey in view of Cartwright and further in view of Proctor. Specifically, Proctor fails to teach or suggest the use of a biodegradable lining to facilitate the passage of roots through the box-shaped element when it is placed on or in the ground. The suitability of plastic as a medium for the cover confirms that Proctor teaches away from the use of a material to facilitate unrestricted growth of the root system. Indeed, like Nacey and Cartwright, Proctor teaches a product that confines the root system of the plant. For the aforementioned reasons, Nacey and Cartwright do not obviate the present invention. Proctor does not remedy this deficit with respect to claims 4, 5 and 18. Therefore, the rejection of claims 4, 5 and 18 should be withdrawn and the claims allowed.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests withdrawal of the outstanding rejections and allowance of the pending claims.

Applicant has submitted a check for \$1,020.00, which represents the fee for a three-month extension of time. Should any additional fee be required, or if any overpayment has been made, the Commissioner is hereby authorized to charge any fees, or credit or any overpayments made, to Deposit Account 02-4377.

Respectfully submitted,
BAKER BOTTS L.L.P.

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United States Department of Agriculture
Risk Management Agency

July 2004

2005 COMMODITY INSURANCE FACT SHEET

Nursery Crop

Arkansas, Kentucky, Louisiana, Mississippi and Tennessee

Crop Insured

The crop insured will be insurable plants in which you have a share in the county for each practice, (container or field grown).

Insured Plants

The insured nursery plant inventory will be all the nursery plants in the county that are shown on the **Eligible Plant List** and meet all the requirements for insurability. Nursery plant inventory may be insurable by written agreement if specific criteria are met.

Causes of Loss

The insurance provided for unavoidable damage caused only by the following causes of loss that occur within the insurance period:

- Adverse weather conditions
- Volcanic eruption
- Failure of irrigation water supply due to a specific cause of loss
- Fire (provided weeds and undergrowth are controlled)
- Wildlife
- Earthquake
- Delay in marketability of the plants

We do not insure against any loss caused by (unless they meet specific criteria):

- Disease or insect infestation
- A failure of, or a reduction in, the power supply
- The inability to market the nursery plants
- Cold temperatures
- Collapse or failure of buildings or structures
- Failure of plants to grow to an expected size due to drought

Insurance Period

Coverage begins 30 days after the insurance provider receives your signed application. For subsequent crop years, the insurance period begins 12:01 a.m. each

October 1. No application for insurance for any current crop year will be accepted after May 31st of the crop year.

Insurance ends the earliest of:

- Date of final adjustment of a loss when the total indemnities due equal the amount of insurance;
- Removal of bare root nursery plant material from the field;
- Removal of all other insured plant material from the nursery; **or**
- 11:59 p.m. on September 30.

Plant Inventory Value Report

A report declaring the value of insurable plants is used to help determine your premium and amount of insurance. Price limits by size and/or packaging form are contained on EPL/PPS. The reported inventory value may be estimated using the lower of this price, or the lower price contained in the Nursery's Wholesale Catalog or Price Listing. Any indemnity will be determined using the lower of the two prices.

Important Dates

Contract Change..... June 30
Billing Date..... July 1
Cancellation & Termination Date September 30

Definitions

Eligible Plant List: A list published by RMA in electronic format is available from your agent that includes the botanical and common names of insurable plants, the winter protection requirements for container material and the areas in which they apply, the hardiness zone to which **field grown** material is insurable, the designated hardiness zones for each county, and the unit by plant type for each plant on the list. A paper copy of the eligible plant list is also available from your agent.

Field Grown: Nursery plants planted and grown in the ground without the use of any artificial root containment device. In-ground fabric bags are not considered an artificial root containment device.

In-Ground Fabric Bag: Also called a grow bag or a root control bag. A porous fabric bag made of a non-biodegradable material such as polypropylene that typically has a plastic bottom, and is used for growing woody plants in the ground.

Nursery: A business enterprise deriving at least 50 percent of its gross income from the marketing of wholesale plants.

Plant Price Schedule: A schedule of insurable plant prices published by RMA in electronic format that established the value of undamaged insurable plants and the maximum amount we will pay for damaged insurable plants. A paper copy is available from your agent also. Growers have an option to use their catalog prices, if lower.

Practice: A cultural method of producing plants. Standard nursery container grown and field grown are considered separate insurable practices.

Standard Nursery Containers: Rigid containers not less than 3 inches in diameter at the widest point of the container interior and that are appropriate in size and have drainage holes appropriate for the plant. In addition, non-rigid, woven or matted planter bags that are appropriate in size for the plant and allow proper drainage of the growing medium will be considered insurable nursery containers.

Under Report Factor: A factor which adjusts an insured's indemnity for under reporting of inventory values. The factor is always used in determining any indemnity.

Wholesale Marketing: Wholesale marketing, as used in the definition of "nursery" in section 1 (and above) of the Nursery Crop Provisions, means to sell: a) in large quantities; b) at a price below that offered on low-quantity sales; and c) to retailers or commercial users or other end-users for business purposes (for example, sales to landscape contractors and commercial fruit producer).

Catastrophic Insurance Coverage

A catastrophic level of insurance coverage providing 50 percent coverage at a 55 percent price election is available for a minimal cost.

Amount of Insurance

The policy provides protection for up to 75 percent of the value of nursery inventory value report. For each basic unit, the insured's practice value, multiplied by the selected coverage level, times the **price election**, times the insured's share.

Peak Inventory Endorsement

The Peak Inventory Endorsement allows growers to cover temporary increases in inventory without paying a full year's premium. Growers declare the amount of the inventory value increase, and the dates the peak coverage begins and ends. The grower pays premium for the whole month for any portion of a month that the endorsement is in effect.

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